

## CLAIMS:

1. A method of setting a slice level (SL) in a binary signal (T) in presence of noise, the binary signal having a first signal level (A) during a first signal portion and a second signal level (B) during a second signal portion, the method comprising the steps of:

- setting the slice level (SL) initially at a level intermediate the first (A) and the second (B) signal level,

- providing a noise indication (Vcon) by measuring a first noise level (X) during the first signal portion, and

- adjusting the slice level (SL) using the noise indication (Vcon), characterized in that

- the step of providing a noise indication (Vcon) includes measuring a second noise level (Y) during the second signal portion, and in that

- the step of adjusting the slice level (SL) includes adjusting the slice level substantially uniformly during both the first and the second signal portions.

2. A method according to claim 1, wherein the slice level (SL) is set at a value substantially equal to half the difference between the magnitudes of the first (A) and the second (B) signal levels minus half the difference between the magnitudes of the first (X) and the second (Y) noise levels.

3. A method according to claim 1 or 2, wherein measuring the respective noise levels (X,Y) involves detecting peaks in the binary signal (T).

4. A device (10) for setting the slice level (SL) in a binary signal (T) in presence of noise, characterized by:

- a first level shift means (11) coupled between a pair of input terminals (15) for receiving the binary signal (T) and a pair of output terminals (16) for supplying the adjusted binary signal,

- a second level shift means (12) coupled to the pair of input terminals (15),

- a noise peak level detection means (13) coupled to the second level shift means (12) for receiving shifted input signals and producing a noise indication signal (Vcon) indicative of any difference in noise levels between signal portions having different signal levels (A,B), and

5                   - an adjustment connection (14) for feeding the noise indication signal (Vcon) to both the first and the second level shift means (11,12) so as to compensate any difference in noise levels.

5.                   A device according to claim 4, wherein the noise peak level detection means  
10 (13) comprise a first peak detector (17) for detecting peaks in a first signal level (A) of the binary signal (T) and supplying a first peak detection signal, a second peak level detector (18) for detecting peaks in a second signal level (B) of the binary signal (T) and supplying a second peak detection signal, and a differential amplifier for amplifying the difference signal of the first and the second peak detection signal so as to produce the noise indication signal  
15 (Vcon).

6.                   A device according to claim 4 or 5, wherein the adjustment connection (14) comprises a low-pass filter (14) for filtering the noise indication signal (Vcon).

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7.                   A device according to claim 4, 5 or 6, wherein the first signal shifting means (11) and/or the second signal shifting means (12) comprise a series connection of a resistive element (R1; R2; R3; R4), a transistor (T1; T2; T3; T4) and a current source (SI), the bases of the transistors being coupled to receive the noise indication signal (Vcon).

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8.                   A device according to any of claims 4 to 7, wherein the noise peak level detection means (13) further comprise an RMS level detector (22) for detecting the RMS level of the binary signal (T), a first differential amplifier (23) for amplifying the difference of the first level (A) of the binary signal and the RMS level to supply a first level  
30 compensated noise signal to the first peak detector (17), a second differential amplifier (24) for amplifying the difference of the second level (B) of the binary signal and the RMS level to produce a second level compensated noise signal to the second peak detector (18).

9. A device according to claim 8, wherein the RMS level detector (22) comprises a series connection of a transistor (T5;T6), a resistor (R5) and a capacitor (C5).

10. A device (10) for detecting the noise level in a binary signal (T), comprising a noise peak level detection means (13) for receiving input signals and producing a noise indication signal (Vcon), characterized in that the noise peak level detection means (13) comprise an RMS level detector (22) for detecting the RMS level of the binary signal (T), a first differential amplifier (23) for amplifying the difference of the first level (A) of the binary signal and the RMS level to supply a first level compensated noise signal to the first peak detector (17), a second differential amplifier (24) for amplifying the difference of the second level (B) of the binary signal and the RMS level to produce a second level compensated noise signal to the second peak detector (18).